

## 2. The Act seeks to enable various forms of local competition

43. The Act discusses three forms of entry into local markets: facilities-based, resale, and unbundled network elements.

44. *Facilities-based entrants* serve their subscribers using their own network facilities except to exchange traffic with the incumbent LEC.

45. *Resellers* bring no independent network facilities, but resell under their own name the existing services provided by the incumbent (total service resale), combined perhaps with other services. They undertake all the relevant customer-interface functions such as billing and marketing ("retailers" is therefore a better description than the conventionally-used "resellers," since the latter suggests only an arbitrage function).

46. *Entrants using unbundled elements* may lease from the incumbent unbundled network elements, individually or in combination, for example, leasing the incumbent's unbundled loops but providing their own switching facilities.<sup>14</sup>

47. All the above entry modes can serve valuable competitive roles. Facilities-based entry potentially exerts the greatest competitive discipline on the incumbent. But it may not always be desirable, as it could require costly duplication of existing facilities such as loops that could more economically be obtained from the incumbent. Even where desirable, such entry could take considerable time. It is thus important to recognize the potential value of the other two entry modes.

48. Entry by firms that are not entirely facilities based can be beneficial in various ways. First, an entrant could bring direct competitive discipline to those segments it enters, in the form of lower costs and prices or higher quality. For example, resellers might perform retailing functions more effectively than an incumbent; loop unbundlers might limit an incumbent's ability to discriminate against IXCs through control over the intelligence embedded in the switch. Even entrants that are no more efficient could undercut the incumbent by accepting a lower profit margin—because regulation is

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<sup>14</sup> Important differences between resale and the use of unbundled elements stem from the different standards for pricing stipulated in the Act in the two cases (as I explain in section V), and from increased opportunities that use of unbundled elements offers for access competition, product and service innovation, and eventual migration to facilities-based entry.

unlikely to succeed in lowering the incumbent's prices all the way to cost. In addition to such direct competitive discipline, entrants can provide indirect discipline: by giving regulators a benchmark of true costs or technical capabilities, they can assist them in better regulating the incumbent.

49. Second, such entry can increase product variety and quality. For example, reselling local services enables entrants that provide also other services to offer one-stop shopping without having to build facilities for all their services or in all regions; the major IXCs among others view such ability as very important. Resellers or entrants using unbundled elements might offer new pricing plans better tailored to certain customers than are the incumbent's offerings. Entrants using unbundled loops might offer new switch-based ("vertical") services. More generally, smaller entrepreneurial firms could stimulate innovation if given the opportunity to specialize in segments where they enjoy a comparative advantage while obtaining from the incumbent at cost-based prices other unbundled elements they require.

50. Third, such entry modes can assist and accelerate the transition to full-facilities competition, by allowing entrants to attain a customer base before being forced to build extensive facilities. Requiring entrants to be entirely facilities-based at the outset would saddle them with unnecessarily high fixed costs and excess capacity (while subscribers are being added), making entry more risky and more costly. Conversely, granting entrants access at reasonable prices to complementary LEC facilities during the transition could permit a faster and more economical transition to full-facilities competition. Indeed, in the long-distance market some entrants began mainly as resellers and added their own capacity as their name recognition and subscriber base grew.<sup>15</sup>

51. Recognizing the potential value of all entry modes, the FCC observes: "Section 251 neither explicitly nor implicitly expresses a preference for one particular entry strategy. Moreover, given the likelihood that entrants will combine or alter entry strategies over time, an attempt to indicate such a preference in our section 251 rules may have unintended and undesirable results. Rather, our

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<sup>15</sup> In long distance, however, there is an active wholesale market because multiple facilities owners compete to provide bulk capacity. Before such competition emerged, regulation was required to induce AT&T to provide wholesale capacity to others. Similarly, implementing local resale today—and other wholesale local services—will require regulation as long as LECs retain dominance over local networks.

obligation . . . is to establish rules that will ensure that all pro-competitive entry strategies may be explored.” (Local Competition Order, ¶ 12.)

### C. Cooperation by Incumbent LECs Will Be Critical

52. Removal of legal and regulatory barriers is enormously important to promoting local competition, which is the key to securing the Act’s goals. But Congress recognized that removing legal barriers is only half the battle. One must also remove artificial obstacles mounted by incumbent LECs, since all local entrants need access to certain LEC inputs.

53. *Facilities-based entrants require interconnection.* A facilities-based entrant would still require good and reasonably-priced interconnection to the LEC’s public switched network. Interconnection is vital because the essence of communication is the ability to reach and be reached by others. Thus, telephone service exhibits such unusually strong positive “network externalities”—the network’s value to a subscriber increases greatly with the number of subscribers that can be reached through the network. Initially an entrant will have far fewer subscribers than the incumbent, so if networks were not adequately interconnected, customers would prefer the incumbent’s even if the entrant’s network was otherwise superior.

54. As a result, the incumbent can use ubiquity advantages that derive from control of its installed subscriber base and bottleneck facilities as strategic weapons to stifle entry.<sup>16</sup> For example, the incumbent might impose onerous interconnection terms or deny number portability (the ability of

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<sup>16</sup> A transparent example of the importance of “interconnection” (or “compatibility”) in the face of ubiquity, is directory assistance. A firm with only a small subscriber base would be inherently limited in its ability to offer adequate such services—whether through operator services, yellow pages, or other modes—if denied access to the necessary information about the incumbent’s subscribers. Industrial organization economists have recognized the importance of ubiquity and installed-base advantages in industries characterized by strong (positive) network externalities. Non-technical surveys of this literature and relevant bibliography can be found in Michael L. Katz and Carl Shapiro, “Systems Competition and Network Effects,” *Journal of Economic Perspectives*, vol. 8, no. 2, Spring 1994, 93-115, and Stanley M. Besen and Joseph Farrell, “Choosing How to Compete: Strategies and Tactics in Standardization,” same journal and issue, 117-131. The need for interconnection (broadly defined) is probably more acute in telecommunications than in any other industry. For a recent formal analysis of strategic use of interconnection pricing (what the 1996 Act calls “transport and termination” charges) to reduce competition see Jean-Jacques Laffont, Patrick Rey, and Jean Tirole, “Network Competition: I. Overview and Nondiscriminatory Pricing,” and “Network Competition: II. Price Discrimination,” Institut d’Economie Industrielle, Toulouse, 1997.

customers to maintain their telephone numbers if they switch to an entrant). Overcoming such ubiquity barriers in telecommunications would be very difficult without the aid of regulation. On this point, economists are—quite out of character—virtually unanimous. Thus, until the incumbent's share of subscribers is significantly eroded, even efficient facilities-based competitors will depend on continued regulation to discipline the incumbent's interconnection terms and prices; to secure number portability; to allow its customers to call any subscriber of the incumbent in the local area without dialing more digits than would another subscriber of the incumbent ("local dialing parity"); and to access common signaling facilities and databases.

55. *Resellers require adequate wholesale discounts.* Resellers require the incumbent's cooperation in switching over customers and in obtaining access to various operations support systems. In addition, since resellers undertake costly retailing functions such as marketing and billing otherwise performed by the LEC, to succeed even an efficient reseller must obtain the LEC services at wholesale prices discounted off the LEC's retail prices by an amount equal to the LEC's avoided retailing costs.

56. *Partial-facilities entrants require network unbundling.* Like a full-facilities entrant, a partial-facilities entrant also requires interconnection so its subscribers can communicate with the incumbent's. But it requires also network unbundling—access at economical pricing to that *subset* of network elements it wishes to lease from the LEC. The degree of incumbent cooperation needed to make unbundling work efficiently is probably even greater than for the other two entry modes, since unbundling can involve reaching deeper into the network.<sup>17</sup>

57. The Act (§§ 251, 252) requires incumbent LECs to provide the above requisite cooperation to all local entrants. But requiring incumbent cooperation and attaining it are two different things. Incumbents are naturally inclined to resist any encroachment by competitors, and regulators will have their work cut out for them in implementing the Act's requirements for promoting local competition.

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<sup>17</sup> As a general matter, although unbundling requirements may generate competitive benefits, such requirements potentially create organizational diseconomies as well. The extent of these benefits and costs vary from industry to industry, and depend also on the degree of unbundling that is required. The 1996 Act reflects a policy judgment that it will be economically beneficial to require the unbundling of certain elements of the networks of incumbent LECs, and I have assumed here that this Congressional judgment is correct.

Softening incumbents' resistance and inducing greater cooperation would therefore be quite valuable. As I will show, this point is critical for developing a procompetitive BOC entry standard.

#### **D. The Potential Benefits and Costs of BOC Entry: Overview**

58. There is broad agreement that BOC interLATA entry is in the public interest once the BOC faces sufficient local competition to eliminate its local market power. But what are the tradeoffs from authorizing earlier BOC entry?

##### **1. Potential benefits**

59. The potential benefits of earlier BOC entry are conceptually straightforward. Briefly, BOC entry could allow realization of *economies of scope*, especially in retailing functions: offering local and long-distance services jointly could produce large savings in billing, marketing, and other costs. Moreover, it is widely believed that many consumers would value highly the simplicity and convenience of a single bill, a single customer service representative, and other advantages of *one-stop shopping* for all their telecommunications services, as well as being able to obtain new bundled packages of such services. The BOC in its region is unusually well positioned to tap these advantages on both the supply and demand side of joint provision because it is the dominant provider of a key ingredient, local services, and enjoys an established reputation and customer base.

60. In the longer run, these advantages of joint provision are not unique to the BOCs; other telecommunications providers with established reputations (such as the major IXC's) could realize these benefits provided the BOCs and state regulators have effectively opened the local markets to competition as required in the Act. However, in the short run the BOCs do possess some special advantages in joint provision (see section II.A).

61. Aside from these benefits of joint provision, BOC entry could bring more competition in long-distance services. The BOC is unusually well placed to provide such additional competition, especially for residential and low-volume business customers, due to various advantages deriving from its powerful brand name and established customer links in its region (see section II.C.2). Indeed, because there are always potential benefits from letting any firm try its luck in any market, economists' normal instinct is to avoid placing artificial entry restrictions, unless there are strong offsetting considerations.

## 2. Potential costs

62. In this case, however, there are offsetting considerations. It is important to understand these potential costs in order to appreciate why BOC entry cannot be analyzed as just generic entry by any other firm. Because the potential costs and how to best address them are less transparent than the benefits, this affidavit devotes more attention to analyzing these issues.

63. In a nutshell, a BOC's control over key local network inputs needed by others to compete in local services, long-distance services, and integrated services could enable it to inefficiently handicap rivals and distort competition in all these services. A BOC's incentives to handicap such rivals will increase after entry, compared to its pre-entry incentives under a suitably structured entry standard. These altered incentives can be very damaging, since regulatory (and other) oversight cannot always secure BOC cooperation in supplying inputs to rivals as effectively as would be forthcoming if incentives were better aligned. I outline next why BOC incentives to cooperate will diminish post entry, then discuss the ability of regulatory oversight to enforce cooperation in the face of these reduced BOC incentives. Section E draws out the implications for the design of a procompetitive entry standard.

64. Authorizing BOC entry affects BOC incentives through two main channels: (a) leverage into long-distance and integrated services; and (b) emboldened resistance to local competition.

### a. Leverage into long-distance and integrated services

65. *Long-distance services.* The Department of Justice sought the Bell System's 1984 divestiture of its local telephone operating companies to prevent misuse of these key monopoly local networks to stifle competition in related markets—notably long-distance services, equipment manufacturing, and information services—that were viewed as potentially competitive but heavily dependent on access to these local networks. Incentives to artificially favor one's affiliates in adjacent markets flow in large part (though certainly not entirely) from asymmetric regulation. A firm whose prices are regulated at the bottleneck, as the Bell system was for local telephone services and as the BOCs are today, has strong incentives to circumvent such regulation by favoring its unregulated (or less tightly

regulated) operations in adjacent markets.<sup>18</sup> The favoritism can involve cross-subsidization (see section III.B.1.a). More importantly, it can involve non-price access discrimination—hampering rivals' access to the bottleneck, for example, by imposing conditions that inflate rivals' costs or degrade their quality (see section III.A.1). This enables the firm to raise its (less regulated) prices in those adjacent markets, while distorting competition and harming consumers in the process.

66. The choice to seek divestiture of the regulated local telephone monopolies from long-distance segments reflected a judgment that, at that time, regulation could not—without being overly intrusive—adequately control the myriad types of (non-price) access discrimination that a vertically-integrated entity could employ. If allowed into long distance, BOC incentives would resurface to attempt access discrimination against IXC's in order to circumvent regulation. Indeed, today there may be a new motive for access discrimination, namely, to weaken the major IXC's as potential entrants into local services; BOC entry reduces the cost to it of engaging in such behavior since lost access revenue from reduced IXC sales is partly offset by increased BOC long-distance sales (see section III.B.2.a). However, a BOC's *ability* to act on its incentives and engage in such access discrimination is weaker today, as explained shortly.

67. *Integrated services.* The ability to offer integrated services is widely emphasized as competitively important, both due to cost savings from joint provision and to the willingness of some consumers to pay a premium for dealing with integrated providers. The key inputs that non-BOCs lack to offer integrated services in a BOC's region are the monopolized *local* services; long-distance and other services can be readily obtained from alternative providers. A BOC's entry into long-distance—and hence integrated services—directly reduces its incentives to supply others key wholesale local services which they need to provide integrated services. As with long-distance services, a main driver of BOC leverage incentives into integrated services is asymmetric regulation: the BOCs are likely for some time to remain regulated in their prices for local services or inputs, but would become unregulated (or less regulated) in retail sales of long-distance services. The wrinkle

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<sup>18</sup> See, for example, Timothy J. Brennan, "Why Regulated Firms Should Be Kept Out of Unregulated Markets: Understanding the Divestiture in *United States v. AT&T*," *Antitrust Bulletin* 32 (1987), 741–793.

here is that undermining competitors in integrated services by withholding from them good access to wholesale local services could benefit a BOC beyond attempting to degrade only long-distance access.

68. The reasoning is as follows. Regulation is likely to be more effective in preventing a BOC from degrading existing long-distance access arrangements than in prodding it to establish the largely new arrangements for wholesale *local* services (see section I.E below and section IV). Thus, impeding access to wholesale local services can be a more potent way for the BOC to weaken competitors in integrated services. This in turn could be profitable for at least two reasons. (a) Limiting rivals' ability to realize cost savings from joint provision of services also limits the downward pressure they can exert on the BOC's unregulated prices for long-distance services. (b) Some customers are willing pay a premium to deal with a provider of integrated services (e.g., they value one-stop shopping); hence, a BOC could extract higher (unregulated) prices from such customers for its long-distance services if can impede other providers of integrated services.

#### **b. Emboldened resistance to local competition**

69. *Local services.* Promoting local competition is a key stand-alone goal of the Act (witness the §§ 251, 252 requirements on all incumbent LECs), but one whose attainment will require considerable LEC cooperation. Naturally, all other things being equal, the LECs are reluctant to extend such cooperation to competitors that could threaten their local dominance (this reluctance does not hinge on a LEC's status as subject to price or profit regulation). Providing LECs with incentives to cooperate can greatly accelerate the process. In the case of the BOCs, the promise of interLATA entry *conditional* on having first provided appropriate cooperation can be a potent tool for enticing cooperation. This point is very important.

70. The BOC is likely to be far better informed than regulators about how to establish the new local access arrangements and how long this should take. Thus, authorizing BOC entry only after the requisite arrangements necessary to open the local market are made available puts the onus in the right place: the BOC's desire for earlier entry prods it to implement its part quicker. Conversely, the ability to prod a BOC to implement new systems diminishes significantly once entry authority is granted. Absent meaningful benchmarks, penalty threats are problematic, because regulators and

courts lack the information about what are reasonable implementation lags for new systems. Authorizing BOC entry before its local market is open would thus prematurely embolden the BOC to stiffen its resistance to opening its market.

#### **E. Principles for a Procompetitive Entry Standard**

71. By itself, allowing a BOC to offer long-distance and integrated services is desirable; the potential benefits could be substantial. The danger with premature BOC entry, however, is certainly not that it will enhance the BOC's ability to compete; the danger is that it will allow the BOC to impede others' ability to compete. A procompetitive BOC entry standard should strive to ensure that all parties are given an opportunity to compete on the merits. As the FCC's former chief economist has put it, our goal should always be to level the playing field upwards (Farrell, 1996).

72. Given the importance of good access to BOC local networks for protecting competition in long-distance services and for promoting it in local and in integrated services, the costs of "early" BOC entry are likely to outweigh the benefits if regulatory and other safeguards cannot assure good access in the face of reduced BOC incentives to cooperate. A key question therefore for developing a procompetitive entry standard concerns the efficacy of various post-entry safeguards in enforcing BOC cooperation.

73. Economic reasoning suggests—and historical experience confirms (see section IV)—that the efficacy of regulatory oversight varies widely with the economic environment. Regulation, while never perfect, fares much better in a stable environment where information is reasonably symmetric, than in a rapidly changing environment where informational asymmetries are greater and more frequent adjustments are needed. Correspondingly, regulatory oversight does much better at enforcing existing access arrangements than at overcoming incumbents' resistance to rapidly implement new arrangements, for which the lack of historical benchmarks on what constitutes acceptable performance gives incumbents great latitude for plausible deniability.

74. These observations have important implications. Because access arrangements for long-distance services have had over a decade to develop, the combination of regulation and established voluntary arrangements among IXC's and LEC's is likely to prevent any significant degradation of these established arrangements. Although the necessary arrangements will certainly evolve over time,

my understanding is that radical changes in access arrangements governing the majority of interexchange revenues are not imminent. The evidence thus suggests that, when weighed against the potential benefits of BOC entry, the threat to long-distance access arrangements from allowing BOC entry is tolerable in the short run.<sup>19</sup>

75. The picture is quite different regarding access arrangements for local competition. These arrangements—for interconnection and, especially, for network unbundling and total service resale—are largely new and untested. Implementing them will require substantial cooperation by incumbent LECs in developing a host of new technical, operational and business protocols, and in establishing appropriate prices. Incumbents will have wide latitude to stall the process by foot dragging, slow rolling, and otherwise withholding cooperation. “Sins of omission” of this sort are especially difficult for outsiders to detect and prevent, since there is no historical benchmark to guide what is possible and to gauge deviations from this norm. Thus, local competition will evolve more expeditiously and more efficiently if the BOCs have greater incentives to cooperate in putting in place the new access arrangements needed to open their local markets to competition.

76. An appropriately structured interLATA entry standard can play a major role in stimulating BOC cooperation. One should harbor no illusions: incumbent LECs have great latitude to help or hinder the evolution of local competition, and a suitable BOC entry standard can elicit much more BOC cooperation in establishing and properly pricing the key new arrangements.

77. On the other hand, once the major new arrangements have been established and shown to be commercially operable, and once reasonable prices for them have been set, a track record is created for what constitutes “good performance.” Post-entry safeguards—regulatory, antitrust and contractual—then become more effective at countering BOC attempts to reduce cooperation, since the performance benchmarks can help enforcers to prevent future backsliding and to extend these arrangements to other regions or other entrants.<sup>20</sup> Thus, authorizing BOC entry only after the major

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<sup>19</sup> Over the longer term, technical evolution could give rise to greater problems for regulators in safeguarding long-distance access if local competition fails to develop.

<sup>20</sup> I understand that several CLECs have incorporated certain performance benchmarks into their contracts with penalty clauses if BOCs fail to meet such standards. Moreover, several state commissions such as in Illinois and Georgia have or may soon receive authority to enforce performance standards by levying fines where

new access arrangements are in place—or demonstrably made available—can cement important steps to irreversibly open local markets to competition.

78. It is important, however, that these new access arrangements be demonstrated to work on a commercially significant scale, under real-world strains; arrangements that exist only on paper or have not been meaningfully tested do not provide much comfort. As with any new ventures, there will be inevitable growing pains; it is important to iron out the kinks while the BOC is still relatively inclined to cooperate—that is to say, before interLATA entry has been authorized. The § 271 entry authority thus is a potent one-time measure that, if properly used, can achieve a real advance in local competition—with favorable effects also on competition in integrated services, and in the longer run also on competition in long distance.

79. Weighing the potential benefits and costs of BOC entry leads me to advocate the following entry standard: BOC interLATA entry should be authorized only if there is sufficient confidence that the local market in the state has been irreversibly opened to competition. Authorizing earlier entry would raise serious competitive concerns; while delaying entry once the local market is open would unnecessarily deprive consumers of potentially large benefits. This open-market standard does not require the presence of effective local competition of all forms and in all regions of the state; the Act aims to let market forces determine what modes of competition work best and where, and regulatory and other safeguards will still play a role in preventing abuse of BOC market power. But it does require considerably more than paper compliance with the competitive checklist.

80. By far the best test of whether the local market has been opened is observing the emergence of meaningful local competition. Local competition establishes presumptions; the more widespread and varied it is, the greater our confidence that the local market has been irreversibly opened. Use on a commercial scale of the new access arrangements needed to support all three local-entry modes envisioned in the Act—facilities-based, unbundled elements, and resale—demonstrates that competitors are obtaining what they need. If sufficiently diverse competition fails to develop, it is

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appropriate. Peter Elstrom, "Let the Telecom Dogfight Begin," *Business Week*, April 7, 1997. Finally, even after BOC entry the Act authorizes the FCC to halt a BOC's signing of additional customers. All these safeguards become much more effective once there is a clearer notion of what constitute violations.

important to understand why. An absence of sufficient competitive entry calls for skepticism in approving an entry application, requiring offsetting evidence that the absence of competition reflects lack of interest by entrants. In the absence of such a showing, the presumption would be that the market has not been irreversibly opened. For reasons sketched in the earlier Summary and explained further in section V.D, the main requirements for an open market are: full, meaningful implementation of the major new technical and operational access arrangements for local competition; adequate assurance that BOC prices are reasonable and cost-based and will continue to remain so after interLATA relief is granted; and removal of major state regulatory or other artificial barriers that are likely to significantly delay local competition

81. The remainder of this affidavit fleshes out the basis for these conclusions. Section II discusses the likely benefits from early BOC entry. Section III discusses the competitive concerns, and section IV addresses the efficacy of regulatory and other post-entry safeguards in counteracting these concerns. Section V elaborates on the requirements needed to determine that the local market is irreversibly opened to competition, and concludes that the Justice Department's entry standard correctly incorporates these requirements and therefore serves the public interest in promoting competition.

## **II. Potential Benefits of BOC Entry**

82. There are potentially significant benefits from early BOC interLATA entry. The argument rests on two points: (1) BOC entry can bring certain efficiencies; and (2) these efficiencies cannot be attained by other providers as fully or expeditiously without BOC entry (if they could, BOC entry would not be necessary). Step (2) arises because the BOCs today would possess certain unique advantages in providing integrated services; and because the Act ties the removal of certain constraints on the ability of other firms to compete to the approval of BOC interLATA entry. The resulting potential benefits from BOC entry include: A) cost savings and introduction of new integrated services, made possible by joint provision of local and long-distance services; B) increased competition in intraLATA toll services in states that now lack dialing parity; and C) increased competition in interLATA services.

### **A. Joint-Provision Efficiencies: Cost Savings and New Integrated Services**

83. The efficiencies from jointly providing local and long-distance services largely involve: (a) on the supply side, the cost savings from joint retailing of services; and (b) on the demand side, the value to consumers of one-stop shopping and other new integrated services.

#### **1. Cost savings**

84. *Technological economies* on the network side exploitable only through BOC interLATA entry seem modest. First, IXC's network costs are only a relatively small share of their total cost of providing long-distance services, so there is only relatively little cost to cut; several BOCs reportedly have signed contracts with IXCs to lease wholesale long-distance capacity at prices between 1 and 2 cents per minute.<sup>21</sup> Second, the separate affiliate requirement in § 272, aimed at combating cross-subsidization and discrimination, appears to preclude network integration and therefore to restrict attainment of network economies in providing local and long-distance services, to the extent such economies did exist. Finally, I am not aware of compelling evidence that significant such economies do exist. Consistent with these arguments that the economies exploitable on the network side are only modest, various BOCs plan to offer long-distance services—at least initially—not by expanding their own facilities but primarily by leasing wholesale IXC capacity.

85. *Retailing economies* however do appear significant. Offering an additional service (i.e., long-distance) to existing customers entails lower incremental costs of marketing, billing, customer service, and other retailing functions than the corresponding costs of providing that service alone.<sup>22</sup> A BOC offering long-distance services could plausibly realize cost savings in these retailing functions of around 2 to 2.5 cents per minute compared to an IXC that is not providing integrated services (see

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<sup>21</sup> Merrill Lynch, *Telecom Services—RBOCs & GTE*, November 13, 1996. Salomon Brothers, *Telecommunications Services*, April 17, 1996.

<sup>22</sup> Whereas §§ 272(a), (b) appear to restrict network integration, § 272(g) permits joint marketing of local and long-distance services by a BOC or its affiliate, thus allowing the realization of certain retailing economies. Retailing costs are significant. Crandall and Waverman (1995, p. 142) estimated AT&T's 1993 costs per interstate conversation minute net of access payments as: Plant and operations costs, 3.7 cents (Crandall and Waverman as well as others believe the figure is lower today); Marketing and customer service, 3.9 cents; General and Administrative, 2.9 cents.

discussion below, however). Taking the average price of a domestic interLATA call to be roughly 13.5 cents, this would represent a 15%-19% savings.

## **2. New integrated services**

86. Quite aside from cost savings, joint retailing of local and long-distance services can provide direct benefits to consumers, akin to obtaining a new, higher-quality product. Consumers therefore could benefit even if the prices of the underlying services did not fall due to cost savings. Consumers are said to value highly the convenience and simplicity of one-stop shopping and other advantages offered by an integrated services provider. The impressive success of GTE and other non-BOC LECs at capturing long-distance business, sometimes without undercutting IXCs' prices, attests to the importance of offering integrated services.<sup>23</sup> If provided interLATA authority, a BOCs could make available the benefits of such integrated services to consumers in its service regions.

## **3. The ability of other carriers to attain these efficiencies**

87. A BOC, if allowed interLATA entry, would currently enjoy certain advantages over most or all other carriers in the joint provision of telecommunications services in its region: (a) its established brand name allows it to market additional telecommunications services at relatively low costs of advertising and promotion; (b) its existing relations with virtually all local subscribers allows it to offer billing and customer service for added services at relatively low cost; (c) partly for these reasons, it can obtain lower wholesale prices for long-distance capacity from IXCs than can others; and, most importantly, (d) its control of local networks makes it the dominant source of key local services needed to offer integrated services.

88. The largest IXCs similarly enjoy strong reputations and established customer relations with telephone subscribers in the BOC's region. Thus, they could match many if not all of the efficiencies deriving from (a) and (b), *provided* they could obtain comparable access to (c)—the key local

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<sup>23</sup> GTE, the largest LEC, signed more than 750,000 long-distance customers between March 1996 and December 1996 (and by February 1997 over 1 million), and cited a big reason for this success to be customers' preference for a single bill and a single number for customer service. Gautam Naik, "GTE to Introduce Flat-Rate Toll Calls For Business Users," Wall Street Journal, December 18, 1996. Reportedly, GTE did not engage in any substantial under-pricing of the major IXCs, based on published plans. Merrill Lynch, *Telecom Services—Long Distance*, Second Quarter Review, August 12, 1996.

services now controlled by the BOCs.<sup>24</sup> The Act, of course, requires all incumbent LECs to provide such access to wholesale local services; however, delaying BOC interLATA entry until such comparable access has been secured would delay the advent of benefits from joint provision. The basic reason is that implementation and proper pricing of access to the various new wholesale local services required by the Act will take time.<sup>25</sup> Thus, there is a benefit side to allowing early BOC entry. (The cost side of authorizing BOC entry before certain market-opening measures have been implemented is discussed later.)

#### **B. Increasing the Competition in IntraLATA Toll Services via Dialing Parity**

89. Section 271(e)(2)(B) of the Act prohibits a non-excepted state from requiring a BOC to implement intraLATA toll dialing parity before February 1999 unless the BOC is authorized to offer interLATA services in the state.<sup>26</sup> Section 271(e)(2)(A) requires a BOC to implement intraLATA toll dialing parity when it begins offering interLATA services. Thus, BOC interLATA entry would indirectly boost competition in intraLATA toll services by triggering dialing parity; such dialing parity has proven to be very important for stimulating intraLATA toll competition. In Minnesota, for

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<sup>24</sup> IXCs may still face some disadvantages in joint retailing, e.g., IXCs sometimes rely on BOCs for local billing, hence would face a cost disadvantage unless the BOC offered billing services to them at cost. One must also distinguish BOC retailing advantages that reflect cost savings from those that reflect misappropriation of IXC "assets." For example, when an IXC requests from the BOC a local access arrangement needed to provide a new long-distance capability to a customer, the BOC may alert its long-distance operation to the customer's needs and beat the IXC to the punch. Such behavior constitutes misappropriation of IXC information, essentially free riding on the marketing efforts of the IXC; the separate affiliate requirements in § 272 of the Act bars such behavior, as well as other forms of discrimination.

<sup>25</sup> In addition to these inevitable delays, there may be binding constraints imposed by the Act itself. The quickest route for non-BOCs to offer integrated services on a large scale would be to obtain local services from the BOCs at discounted wholesale prices for resale. But § 271(e)(1) of the Act prohibits the three largest IXCs (any carrier that at enactment served more than 5% of U.S. presubscribed access lines)—who are also the most likely large-scale potential competitors to the BOCs in integrated services—from jointly marketing resold local services with long distance-services until February 1999, unless the BOC is authorized to offer interLATA services in the state before this date. It remains unclear whether the restriction also would apply to local services obtained by purchasing all required unbundled network elements from the BOC (the so called "platform").

<sup>26</sup> Single-LATA and states that ordered dialing parity by December 19, 1995 are excepted. As of April 22, 1997, there were 26 multi-LATA states where toll dialing parity is thus precluded by the Act. In 1995, 62% of all completed intraLATA toll calls originated in these states. SCCC 1995/96, Table 2.6.

example, competitors have captured over 30% of the market since toll parity was implemented in February 1996.

### **C. Increasing the Competition in InterLATA Services**

90. The argument for why BOC entry would increase competition in interLATA services rests on three premises. First, interLATA markets exhibit imperfect competition. Second, the BOC is uniquely positioned to offer increased competition (otherwise other entrants would do just as well). Third, BOC entry indeed would bring such competition.

#### **1. Competitiveness of interLATA markets**

91. The extent of interLATA competition is hotly contested. BOCs and their experts characterize it as "anemic" and "tacit collusion" while IXCs portray it as "robust" and "intensely competitive."<sup>27</sup> It is helpful to review some salient points.

92. *Market Structure.* Supply of interLATA services is quite concentrated: in 1995, AT&T accounted for about 53% of revenues, MCI for 18% and Sprint for 10%. On the other hand, concentration has declined considerably since divestiture (when AT&T's share of market revenue was over 90%) and is continuing to decline. Four carriers have national networks (AT&T, MCI, Sprint, and WorldCom) and at least one more national network is being assembled; many carriers have regional networks; and there are hundreds of resellers. The market share of carriers other than AT&T, MCI and Sprint has grown from under 12% in 1991 to over 19% in 1995,<sup>28</sup> and, as the FCC observed in October 1995 when finding AT&T non-dominant, these carriers exert considerable competitive discipline. Nevertheless, the growth of independents is in theory consistent with supracompetitive ("umbrella") pricing by the majors. In gauging competition therefore one must, as usual, look beyond concentration and other aspects of market structure and examine performance.

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<sup>27</sup> For a sampling of the contrasting views compare Paul W. MacAvoy, *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services*, MIT Press and AEI Press 1996, with Douglas B. Bernheim and Robert D. Willig, *The Scope of Competition in Telecommunications*, AEI Studies in Telecommunications Deregulation, Working Paper, October 1996, 84-85, forthcoming, MIT Press and AEI Press.

<sup>28</sup> FCC, *Statistics of Communications Common Carriers*, 1995/96, Table 1.4.

93. *Performance.* Crandall and Waverman (1995, chapter 5) survey the literature on interLATA competition and remark: "... existing studies. . . are not particularly convincing and do not lead to a single conclusion" (p. 165). This literature has generated so much heat but remarkably little light for reasons of data limitations<sup>29</sup> and methodological problems.<sup>30</sup> Crandall and Waverman perform additional analysis using interLATA *intrastate* data, which offers more observations than interstate data (there are 38 multi-LATA states but only one national jurisdiction), and more sophisticated estimates of quantities. They find that between 1987 and 1993 prices fell much more than access charges; prices net of access fell 4% per year by one estimate (pp. 156-7). Moreover, the data used (*tariffs*, for peak period, switched five-minute calls) fail to capture the impact of various discount plans. Finally, while falling prices could be due to non-competition factors, such as technological cost-reductions, there are other signs of increased competition. Notably, the narrowing of dispersion in prices of calls (a) across states for a given distance, and (b) across different distances suggests that competitive pressures are pushing prices to more closely track costs (pp. 151-3).

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<sup>29</sup> Available price data generally reflect published tariffs ("posted prices") not actual transaction prices; the discrepancy between these is large and growing due to increasing use of discount plans. Recovering average revenue data per minute from published figures on total revenues is complicated by the absence of accurate data on quantities—the number of minutes of network use. More and more usage minutes of large business customers are unswitched (private lines, virtual private networks) or switched only at one end (WATS, 800 calls), and therefore are not captured in conventional statistics on use of the public switched network. Comparing trends in telephone rates measured by Bureau of Labor Statistics (that use tariffs not transactions prices), Crandall and Waverman (pp. 133-6) observe: "The temporal patterns. . . are so wildly inconsistent that they cast doubt on the validity of any of these data." For example, from 1986-93 there was an apparent acceleration in the degree of competition and rate declines, yet reported growth of network use slowed markedly.

<sup>30</sup> For example, the widely cited study by Taylor and Taylor (*American Economic Review Papers and Proceedings*, May 1993) which finds that AT&T's rate reductions have been less than the reductions in its access costs mandated by the FCC, uses not actual data on AT&T's price reductions but projected reductions; such *ex ante* calculations "are suspect" and "unreliable." (Crandall and Waverman, "CW," 130, 168-9). A study by MacAvoy purporting to find tacit collusion among the three largest IXCs (*Journal of Economics and Management Strategy*, 1995) uses tariffs, not transactions prices; and it includes in IXCs' long run incremental cost net of access charges (LRIC) only "incremental operating expenses incurred for transporting switched calls," estimated by the WEFA group to be 1 cent per minute; all sales and administrative costs are left out. The much touted WEFA study that projects \$490 billion in savings to consumers by 2003 from BOC entry assumes among other things: the above LRIC figure of 1 cent; that existing IXC competition is characterized by a simple Cournot model with equal sized firms; that adding a fourth player in a region—the BOC—would decrease rates by 50%; and that these price declines would stimulate the overall economy and add 3.6 million additional jobs over the next ten years. (CW, 169-70.)

94. Crandall and Waverman's overall assessment is that the interLATA market displays "considerable competition" that is "more vigorous than that predicted by the Cournot model" (p. 163) and that "has been effective in reducing prices" (p. 132). However, they add that "(interLATA) markets are not fully competitive so that further entry would be of real value" (p. 132). I share this overall assessment. Allegations that interLATA price competition is nonexistent defy common sense: if there is no competition, why do so many customers switch back and forth between carriers each year?<sup>31</sup> More likely, of course, is that there is considerable competition not captured in published price data, such as the familiar \$50 or \$100 checks as inducements to switch between carriers. On the other hand, though competition exists and is increasing,<sup>32</sup> there is surely room for more competition.<sup>33</sup>

## 2. BOC Advantages over other long-distance entrants

95. A BOC in its region enjoys significant efficiency advantages over other potential entrants into long-distance services. It stretches credulity to argue—as some have—that a BOC has nothing uniquely positive to offer, for example, that if it leases others' facilities to provide long-distance services then it is no different from the hundreds of existing resellers.

96. A BOC's reputation and established billing and customer service arrangements with local subscribers would enable it to market long-distance services more effectively than could other entrants. A BOC would be especially well placed to address lower-volume customers. First, billing and other "fixed and common costs" of serving a customer are relatively large compared to the revenue from low-volume customers, and a BOC already incurs most of these costs in providing local

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<sup>31</sup> In 1994, 19 million customers (20% of all customers) changed carriers 27 million times. In 1995, customers changed carriers over 42 million times, and the 1st quarter of 1996 saw an even faster pace. Peter K. Pitsch, "The Long Distance Market Is Competitive," Pitsch Communications, September 3, 1996, p. 2.

<sup>32</sup> Merrill Lynch, *Telecom Services — Long Distance*, November 13, 1996. John J. Keller, "AT&T Results Hit by Cost of Changing Marketplace," Wall Street Journal, October 18, 1996 ("cutthroat competition in long distance services").

<sup>33</sup> The publicized flat-rate plans recently offered by major IXC's, such as Sprint's 10 cents per minute at off peak times and AT&T's 15 cents per minute any time, do suggest increased competition; but they also call into question previous claims that the market was intensely competitive already.

service. Second, low-volume customers are often reluctant to switch from a major IXC to an unfamiliar vendor, and a BOC in its region is often the only carrier with a comparable reputation to those of the major IXCs.<sup>34</sup> These advantages which would render the BOC a powerful retailer of long-distance services also enable it to obtain wholesale long-distance capacity from IXCs at unusually low prices, further increasing its cost advantage over other potential entrants into retail long-distance services.

### 3. How much competition will BOC entry in fact add?

97. The flip side of the BOC's unique advantages, however, is that the BOC may not feel compelled to pass through most of its competitive advantages to consumers. For example, a BOC may elect to pass on to consumers only a fraction of the unusually large discounts it obtains from IXCs on wholesale long-distance capacity. The degree of pass-through is important: it not only influences the distribution of gains between the BOC and consumers, but also influences the degree to which long-distance calling volume will increase, which in turn affects the gains to society from BOC entry.<sup>35</sup> Precisely how much a BOC's entry will (a) lower prices or (b) largely reshuffle profits from IXCs is an open question. Those who argue that BOC entry will greatly lower prices by increasing competition must explain why—if the long-distance market is far from competitive despite the presence of several major IXCs—adding one (albeit potent) competitor in the state would radically alter matters.

98. In my opinion BOC entry would not yield as dramatic an increase in competition as some claim, in part because of the rapid increase in competition that is already occurring.<sup>36</sup> Nevertheless,

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<sup>34</sup> These unique BOC advantages in retailing would yield benefits from BOC interLATA entry even if there was perfect competition in interLATA services, because they allow a BOC to realize various efficiencies (discussed earlier) from joint provision of local and interLATA services. However, if interLATA competition is seriously imperfect and if BOC entry would substantially increase this competition, then the value of such entry is magnified, because it also serves to correct a competitive distortion.

<sup>35</sup> Benefits from joint provision of local and long-distance services (cost savings or new services—see section A) will endure even if long-distance calling volume does not expand; but the focus here is on the added gains from increased long-distance competition.

<sup>36</sup> Merrill Lynch, *Telecom Services—Long Distance*, February 14, 1997, reports that increased supply of long-distance capacity has led to “very competitive bidding in the wholesale market” and that the resulting stiffer competition from entities that benefit from this steep resale discount—independent LECs, resellers, dial around

some further price declines can be expected from BOC entry. Still greater benefits are likely from joint provision of local and long-distance services (cost savings, availability of new integrated services), whose advent would be delayed by delaying BOC interLATA entry. However, authorizing BOC interLATA entry before the local market has been opened to competition also carries competitive risks; to these I now turn.

### III. Potential Competitive Concerns Raised by BOC Entry

99. Section A below discusses more comprehensively the various practices a BOC might employ against long-distance carriers or local entrants, and section B why BOC incentives to do so will increase post entry. Section C addresses whether BOC entry would be inefficient solely because BOC access prices to IXC's, with whom BOC's would compete, are well above BOC costs of providing such access.

#### A. Anticompetitive Practices: Access Discrimination and Exclusionary Pricing

100. In various ways, both long-distance carriers and local entrants depend on good access to a BOC's ubiquitous local network. Control of these vital local inputs gives a BOC an unusual ability, if unchecked by regulation, to engage in anticompetitive practices. It is useful to distinguish between exclusionary practices that involve non-price terms of access to a BOC's facilities ("access discrimination") and those that involve prices—because the welfare effects of the two sets of practices can differ, as can the incentives to engage in them.

##### 1. Access discrimination

101. *Types of practices.* A BOC could impede the ability of rivals to compete by misusing its control of the local network in various ways. It might *raise competitors' costs*, for example, by imposing unnecessarily costly requirements for network interconnection or providing them inferior support or maintenance functions. Increasing competitors' costs induces them to raise prices and

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companies and pre-paid calling cards—has forced the larger IXC's to pursue more aggressive pricing tactics. As an example, AT&T has begun offering 10 cents per minute anytime, anywhere with a \$5 monthly fee, or without any fee for calls at off-peak times. John J. Keller, "Best Phone Discounts Go to Hardest Bargainers," Wall Street Journal, February 13, 1997, B1.

thereby indirectly diverts retail sales from competitors to the BOC or its affiliate. A BOC might also divert demand away from competitors and towards its affiliates directly, without forcing them to raise prices. This might be done by *degrading competitors' quality*, such as by foot-dragging in providing new access arrangements, or by *appropriating competitively sensitive information* about customers obtained in the course of supplying rivals with bottleneck inputs. I will label all these non-price methods to weaken rivals—both in long-distance and in local services—under the general rubric of “access discrimination.”

102. *Inefficiencies.* Access discrimination is a particularly inefficient form of rivalry. Raising competitors' costs is directly harmful, even if it does not lead to higher prices. In fact, prices are likely to rise; this both harms consumers, and creates additional social losses from output reduction. Degrading competitors' quality too is directly inefficient, harming both competitors and consumers. In addition, these practices and the misappropriation of competitively sensitive information could—by weakening competitors or discouraging entry—reduce the variety of products available the other innovations that competitors might bring to a market. These inefficiencies will be borne by both competitors and consumers.

## 2. Over-pricing of inputs

103. Overpricing of inputs needed by competitors, or of outputs that are complementary to those sold by competitors, also is inefficient. The social harm here occurs not because of the high prices themselves but because these high prices inefficiently reduce the quantities purchased. However, setting prohibitively high prices for bottleneck inputs, such as call termination, is tantamount to refusing to supply such inputs and thus can create inefficiencies of comparable magnitudes to those under access discrimination. Steep overpricing of inputs can be seriously anticompetitive even well short of complete exclusion of rivals: by greatly inflating rivals' costs, it can artificially and significantly depress their market presence.

## 3. Under-pricing of outputs

104. BOC entry conceivably could stifle competition also by giving the BOC a new instrument—charging artificially low prices for long-distance services. The arguments can be usefully grouped into three categories, that differ in their plausibility and welfare effects.

105. The first is *predatory pricing* or variants thereof: a BOC would set prices temporarily low in order to stifle competition and subsequently raise prices.<sup>37</sup> Economists are somewhat skeptical of predation arguments, especially when some rivals are well-financed corporations such as the major IXCs, absent regulatory cross-subsidy.

106. The second argument invokes such *cross-subsidy*. A BOC may set an artificially low price that could be profitable to the BOC whether or not price can be subsequently raised in the targeted market; such behavior could be profitable because it entails cross-subsidy from the BOC's regulated activities. As such, it also is inefficient. Section B.1.a below addresses this argument, concluding that cross-subsidy incentives are likely to be weaker for the BOCs today due to increased reliance on price caps and other "incentive regulation."

107. The third argument does not invoke predation or cross-subsidy, but a *price squeeze*. Because a BOC charges IXCs access prices well above its costs, it has an artificial advantage in competing with IXCs for long-distance services. This argument is evaluated in section C.

## **B. Why BOC Entry Increases Anticompetitive Incentives**

108. It is helpful to distinguish anticompetitive incentives driven by attempts to circumvent regulation of price or profit, from incentives that do not hinge on the presence of regulation.

### **1. Regulatory Evasion**

#### **a. Cost misallocation ("cross-subsidization")**

109. *Incentives and methods.* Traditional U.S. regulation of public utilities, including local telephone companies, was known as cost-of-service or rate-of-return regulation, because prices were intended to offer the firm a reasonable opportunity to cover its costs including a fair rate of return on capital. A firm whose prices are regulated in such a manner and which also has unregulated (or more lightly regulated) operations in competitive markets will have incentives to shift profit from the

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<sup>37</sup> For instance, some have argued that a BOC could use low prices of long-distance services to stifle not only long-distance competition but also *local* competition. A BOC's prices for many local services are likely to be regulated but not its long-distance prices; by marketing complex bundles of both services a BOC might offer targeted discounts through its long-distance prices to those local customers most vulnerable to competition. The greater complexity of detecting and proving predatory pricing when part of a complex bundle of services might help the BOC escape antitrust scrutiny of such pricing.

regulated to the unregulated side: the higher profit earned by unregulated operations flows directly to shareholders, while the lower profit of the regulated side allows it to "justify" requests for higher allowable prices. Such profit shifting can occur by misallocating various costs of the unregulated entity to the regulated one, behavior more commonly known as "cross-subsidization."<sup>38</sup>

110. *Anticompetitive effects.* The incentives to engage in cost misallocation stem from a desire to circumvent regulation; but such behavior can have incidental effects of distorting competition. Overpaying an affiliate for its services artificially favors it in competing for sales to the regulated side; misallocating the affiliate's costs to the regulated side (and thus ratepayers) favors it in competing for outside customers by artificially reducing its costs and thereby allowing it to set artificially low prices. These competitive distortions mean that winners are no longer determined on the merits.<sup>39</sup>

111. *Accounting safeguards and separate subsidiaries.* To help detect and prevent cost misallocations, regulators often subject firms to detailed accounting safeguards and sometimes require that unregulated, competitive activities be undertaken through separate subsidiaries. Section 272 of the Act imposes such requirements on BOCs wishing to offer long-distance services. Although such safeguards have some bite, it is widely acknowledged that they have not eliminated cost misallocation in the past, and it is naive to believe they could do so in the future if the firm has strong incentives to engage in cost misallocation.

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<sup>38</sup> These cost misallocations can involve purely accounting manipulations, such as mischaracterizing costs attributable to the unregulated side as "joint and common" to both operations; actual payments, such as overpaying the unregulated affiliates for services or assets they provide or undercharging them for services or assets provided to them; or real resource misallocations, such as selecting production methods that are not cost-minimizing but display more common costs that can then be misattributed. Misallocating revenues of the regulated operation to the unregulated one is conceptually similar, as it leaves the regulated side with a greater deficit which can be used to defend requests for rate increases. I prefer the term "cost misallocation" to cross-subsidization because the latter is sometimes wrongly taken to require that the price of the unregulated service must be below marginal cost. As the preceding examples indicate, the phenomenon is more general.

<sup>39</sup> Additional inefficiencies arise quite aside from the distortion of competition in the unregulated markets. First, prices increase to consumers of the regulated products. Second, any real resource misallocations are directly costly, for example, biasing the choice of production methods towards ones that entail excessive common costs. Finally, even if prices of unregulated services fall (which they need not do, e.g., if the cost misallocation involves only fixed and not variable costs), they would be artificially below cost, causing consumption of unregulated services to be excessive.

112. *Price cap regulation.* Importantly, however, the BOCs argue that incentives to misallocate costs no longer exist because in recent years the FCC and state commissions have moved from traditional cost-of-service regulation towards pure price-caps, that sever the link between a firm's allowable regulated price and its costs. Cost misallocation then loses its purpose, because higher reported costs for the regulated side no longer yield higher prices.

113. These claims overstate the extent of the regulatory changes, for two reasons. First, traditional regulation exhibited some lag between rate cases, during which period prices were not continuously adjusted towards cost. Second, today's regulation does not—and cannot— amount to pure price caps. Price caps can never be pure, but are periodically revised.<sup>40</sup> In addition, some schemes of “incentive regulation” do not involve price caps, but require adjustment of prices to share profits (or losses) with consumers once profits are outside certain specified bands. Therefore, a regulated firm's allowable future prices will ultimately depend on its past costs, which re-introduces some incentives to engage in cost misallocation.

114. Nevertheless, these regulatory changes do seem to have markedly altered BOCs' incentives. The BOCs have embarked on aggressive cost-cutting programs, which financial analysts and others attribute to the regulatory changes.<sup>41</sup> These efforts suggest the BOCs assign some credibility to the new regulatory promises. But in that case, they also would not seem to have a strong basis for counting on regulators to allow rapid price increases beyond stipulated levels in response to increased costs due to cost misallocation (or other reasons).<sup>42</sup> In short, incentives to engage in cost

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<sup>40</sup> Pure price caps would establish a permanent formula for determining the firm's maximum allowable prices at all future dates, based on initial forecasts of the firm's attainable costs (and perhaps indexed to variables that influence costs but lie outside the firm's control, e.g., the overall inflation rate); allowable prices would not be revised in light of the firm's actual cost realizations. But in practice, revisions will necessarily occur. One reason is forecasting errors: if regulators underestimate the firm's true costs and stick to the allowed prices, the firm will go bankrupt; if they overestimate costs, the firm will earn large profits that invite strong political pressure to lower allowable prices. Another reason for revising price caps is the introduction of new services, if these services are to make a contribution towards covering the firm's fixed and common costs. In light of all this, it is not surprising that the FCC and most if not all states have already revised their initial formulas.

<sup>41</sup> See, for example, Merrill Lynch, *Telecom Services—RBOCs & GTE*, Second Quarter Review, August 9, 1996.

<sup>42</sup> Moreover, regulators are especially protective of important customer classes for which local competition is likely to develop more slowly, such as rural and low-volume residential customers. They would thus be

misallocation are certainly more attenuated today, which also serves to lower the risks of the BOCs engaging in anticompetitively low pricing.

**b. Leverage incentives due to asymmetric regulation**

115. A different and more serious anticompetitive incentive involves leveraging of market power from the price-constrained bottleneck to adjacent, unregulated markets, by engaging in the myriad forms of (non-price) access discrimination. As was explained in section I.D.2, incentives for leverage stem in large part from asymmetric regulation: the firm's prices for bottleneck services are regulated, but its prices for other services that rely on the bottleneck services are not regulated (or less tightly regulated). Here it is worth clarifying a few points.

116. First, contrary to some claims, access discrimination is not costless to a BOC since it reduces BOC input sales to the targeted carriers.<sup>43</sup> Nevertheless, a BOC generally will have some incentives to attempt access discrimination if it is selling unregulated services that compete with those offered by firms that depend on its regulated inputs. And unfortunately the more stringent is price regulation of the firm's bottleneck inputs, i.e., the more "successful" is price regulation, the stronger is the incentive to attempt access discrimination.

117. Second, § 272's requirement that a BOC sell its long-distance services only through a separate affiliate by itself does little to dilute a BOC's incentives to attempt access discrimination against the affiliate's competitors (e.g., IXC's)—because the affiliate's and parent's profits accrue to common shareholders. Regulators can dilute the common interests of a firm's different units by imposing further requirements, e.g., that managers be rewarded based only on the performance of their units, not of the overall firm; they also can attempt to block avenues of discrimination. But to eliminate *all* incentives and ability to favor affiliates would require eliminating all commonality of interest

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especially reluctant to allow price increases in these "monopoly" segments due to cost misallocation from the relatively competitive segments.

<sup>43</sup> The firm must compare this revenue loss with the increased profits from selling its unregulated services. For example, the tradeoff is worse when: (1) its services are poorer substitutes for those of rivals, because a smaller fraction of rivals' lost output and thus access revenue is offset by increased demand for the firm's own services; and (2) the firm's ability to expand sales of unregulated is constrained, by capacity limits or other factors.